

Serial No. 09/125,958

Filed: August 26, 1998

AMENDMENT

Please cancel claims 49 and 58.

REMARKS

Claims 5-8, 11-17, 25, 26, 37, 38, 40-48, 50-57, and 59-64 are pending in the present application. Applicants are pleased to note that claims 7, 8, 13-17, 25, 26, 37, 38, 40-48, 50-57 and 59-64 have been allowed. Claims 5, 6, 11, 12, 49 and 58 stand rejected based on the prior art of record.

Claims 5 and 6 have been rejected under 35 U.S.C. §102(e) as being anticipated by Upadrasta (U.S. Pat. No. 5,872,820). Upadrasta discloses a system for exchanging frames between a base station and a mobile station, in which synchronization of frames is effected, in a way that a frame number counter of the mobile station (mobile frame number 280 in Fig. 2 of Upadrasta) and a frame number counter of the base station (frame number counter 253 in Fig. 2) have the same frame number. When a mobile station is turned on, in the mobile station, firstly, a difference between a message frame number (FN1) received first and a message frame number (FN2) received next is calculated, to obtain a TIME_LAG which is a time delay of frames in the mobile station.

After the time delay of frames in the mobile station is determined, the obtained TIME_LAG is added to a current number of the counter 253. Accordingly, time delay in the mobile station is compensated, and thus the current frame numbers of the counters 253 and 280 are identical. Simply put, a frame number counter of the mobile station (mobile frame number 280) is adjusted, so that a current number of the counter 280 is identical to a current number of the counter 253, as illustrated in Fig. 6 of Upadrasta. It is to be noted that referring to Fig. 6, only frames having the same communication delay can be synchronized with the counters. In other words, not all frames are synchronized.

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Independent claim 5 includes the limitation of a transmitter for adding a frame number to each frame for transmission, as illustrated in Fig. 27. Each of the frame numbers is determined on the basis of an expected delay of each frame. As such, a frame number counter itself is not adjusted in the present invention. Specifically, a downlink frame adder 34-4 adds a frame number to a frame having a frame number generated on the basis of a reference clock of a mobile station, the clock being generated in a MFC-M31 as shown in Fig. 2, and the added frame number being determined on the basis of an estimated delay of that frame.

It is important to note that in a case where differing frames have differing communication delays. For example, where frames accommodating voice data and frames accommodating text data are mixed on one communication channel, synchronization of each frame is ensured. As such, from the foregoing discussion, it should be readily apparent that Upadrasta does not disclose the important characteristics or effects of the present invention. To that end, Applicants respectfully request reconsideration of claim 5, as it is clearly not anticipated by Upadrasta.

Independent claim 6 includes the limitation of a receiver for extracting from a buffer, in which received frames are stored, a frame having a frame number which is identical to a number obtained on the basis of an expected time delay of that frame, as illustrated in Fig. 28. Specifically, an uplink frame FN adder 34-4 extracts, from a buffer in which received frames are stored, a frame having a frame number, obtained by adjusting, in an uplink frame extraction controller 34-8, a frame number on the basis of an expected delay of the frame. The adjusted frame number is determined on the basis of a reference clock of the base station, the clock being generated in an MFC-31 as shown in Fig. 2. It is important to note that in a case where differing frames have differing communication delays, synchronization of each frame is ensured, as in independent claim 5. As such, independent claim 6 is not anticipated by Upadrasta and Applicants respectfully request the Examiner to reconsider the rejection of independent claim 6.

Claims 11 and 12 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Upadrasta in view of Bellec (U.S. Pat. No. 5,838,746). The invention claimed in independent claim

Serial No. 09/125,958

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11 is characterized in that, referring to Fig. 36 of the present invention, in a case where, after adding to each frame a frame number determined on the basis of an expected delay of that frame and transmitting it by a transmitter, an actual delay of the frame differs from the expected delay of the frame and where consequently a receiver cannot extract the frame, the frame number to be added to the frame is adjusted. In other words, a frame number is adjusted dynamically, that is, adaptively to fluctuations of communication delays.

Bellec simply discloses just an estimation method of a DC component of a received signal to reduce communication delay of a frame exchanged between a terminal and a station. It is therefore apparent that Bellec does not disclose, teach or suggest a dynamic adjustment of a frame number. In addition, it is readily apparent that Upadrasta also does not disclose, teach or suggest this feature of independent claim 11. To that end, Applicant respectfully requests reconsideration of independent claim 11, as none of the prior art of record renders the invention as claimed obvious.

The invention set forth in claim 12 is characterized in that, referring to Fig. 34 of the present invention, in a case where a receiver extracts from a buffer, in which received frames are stored, a frame having a frame number determined on the basis of communication delay of that frame, when an actual delay of the frame differs from the expected delay of the frame and thus a receiver cannot extract the frame, the frame number of the frame to be extracted is adjusted. Neither Upadrasta or Bellec disclose this feature contained in independent claim 12. As such, Applicants respectfully request the Examiner to withdraw the rejection of independent claim 12 as none of the prior art of reference renders the claimed invention obvious.

Serial No. 09/125,958

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Applicants believe that all of the claims of this application are in condition for allowance. Applicants respectfully request the Examiner to issue a Notice of Allowance indicating the same. If the Examiner feels that a telephone conference with Applicants' attorney of record will expedite processing of this application, the Examiner is invited to contact the undersigned at the telephone number indicated below.

Respectfully submitted,

Dean E. M.

Dean E. McConnell
Attorney Reg. No. 44,916

DEM/dlh

BRINKS HOFER GILSON & LIONE
One Indiana Square, Suite 1600
Indianapolis, Indiana 46204
Telephone: 317-636-0886
Facsimile: 317-634-6701

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